

## ABSTRACT OF THE DISCLOSURE

A silicone hyper-branched polymer surfactant is included in a rinsing solution which may be used to remove photoresist residues. The silicone hyper-branched polymer surfactant is prepared by polymerizing a monomer represented by the following chemical formula (1), where  $R_1$  denotes a vinyl group and  $R_2$  denotes hydrogen, and includes both a hydrophobic group and a hydrophilic group.

